

AUG 28 2009

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Claims:

The following is a corrected complete list of the claims pursuant to 37CFR 1.121.

A Complete List of Claims

August 27, 2009

1-49 (Canceled)

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50 (Previously presented) An illuminating device having an overall light distribution pattern calculated to efficiently provide predetermined surface areas with a design illuminance and color, comprising:

- a) a multiplicity of light sources having respective spectral distributions and respective light distribution patterns which are directional and subtend lesser angles than those of the overall light distribution pattern, and 10
- b) a light source mounting structure configured to mount the light sources which are arranged on the structure such that the respective directional light distribution patterns and the respective spectral distributions combine to form the overall light distribution pattern calculated to efficiently provide the predetermined surface areas with the design illuminance, 15

whereby the overall light distribution pattern, subtending greater angles than that of the respective light distribution patterns is produced directly by the multiplicity of light sources without recourse to at least one of non-integral reflectors and refractors.

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51 (currently amended) The multiple light source illuminating device of claim 50 intended for positioning relative to one or more predetermined surface areas to be illuminated where some of the surfaces to be illuminated require a greater luminous exitance in the direction of that surface in order to be illuminated with the design illuminance comprising:

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- a) a lighting fixture structure,
- b) a positioning apparatus to uniquely affix the structure relative to the predetermined surface areas to be illuminated,
- c) more than one light source mounted on the structure each said light source having a light distribution pattern and intensity about an axis and 30

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d) where said light sources are uniquely disposed over the surface of the structure relative to the positioning apparatus and angularly mounted on the structure with the light distribution axis having a vertical angle α from the nadir and a radial angle β relative to the positioning apparatus and

e) where said unique disposition and angular mounting is determined by the greater or lesser luminous exitance required from portions of the relatively positioned lighting fixture structure so as to substantially illuminate the predetermined surface areas with the design illuminance. 5

Whereby the unique positioning of the light sources on the structure produces a nonsymmetrical light distribution pattern so that the surface areas are illuminated with the design illuminance. 10

52 (Previously presented) The illuminating device of claim 51 further including apparatus uniquely orienting the structure relative to the predetermined surface areas. 15

53 (Previously presented) The illuminating device of claim 51 wherein the respective spectral distributions combine to form the overall light distribution pattern calculated to efficiently provide the predetermined surfaces with the design illuminance and color.

54 (Previously presented) The illuminating device of claim 50 wherein the predetermined surface areas are equidistant from the light source and the design illuminance on the respective predetermined surface areas are not equal. 20

55 (Previously presented) The illuminating device of claim 50 wherein the predetermined surface areas are non-equidistant and the design illuminance on the respective predetermined surface areas are equal. 25

56 (Previously presented) The illuminating device of claim 50 wherein any of the design illuminance and color is any of different and similar combinations for respective predetermined surface areas. 30

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57 (Withdrawn) The illuminating device of claim 51 wherein the design illuminance level is uniform illumination over to at least one of the surface areas and a certain height relative to the surface areas irrespective if the surface area is directly below the illuminating device or off in a distant corner of a room.

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58 (Withdrawn) The illuminating device of claim 51 wherein the design illuminance level is increased task lighting illuminance on certain surface areas and general lighting illuminance level over the rest of the surface areas.

59 (Previously presented) The illuminating device of claim 51 wherein the light source is at least one of substantially monochromatic LEDs and white LEDs. 10

60 (Previously presented) The illuminating device of claim 51 wherein the illuminating device is a luminaire based on specific lighting application criteria according to principles of correct lighting practice to provide the design illuminance and color such that the luminaire provides a controlled illumination intensity, spectrum, luminous exitance and spatial distribution of intensity and spectrum, suited to the specific lighting application, and optionally where the luminaire design criterion includes any items from the list comprised of: a requirement of maintaining an acceptable continuum of spatial illumination and a requirement of maintaining an acceptable continuum of spatial color effects and the requirement for maintaining an acceptable glare rating for the luminaire. 15 20

61 (Previously presented) The illuminating device of claim 60 wherein the intensity, spectrum, and spatial distribution of intensity and spectrum is adjusted for changes in a living space to be illuminated in accordance with the lighting application comprising: 25
(a) a means for sensing the changes; and
(b) a means for changing the light emanating characteristics of the light sources, thereby providing the correct intensity, spectrum, and spatial distribution of intensity and spectrum as a function of time.

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